Human HER2 / ErbB2 Protein (His Tag)

Catalog Number: **10004-H08H**

General Information

Gene Name Synonym:

CD340; HER-2; HER-2/neu; HER2; MLN 19; MLN19; NEU; NGL; TKR1

Protein Construction:

A DNA sequence encoding the extracellular domain (Met 1-Thr 652) of human ErbB2 (NP_004439.2) was fused with the polyhistidine tag at the C-terminus.

Source: Human

Expression Host: HEK293 Cells

QC Testing

Purity: > 90 % as determined by SDS-PAGE

Bio Activity:

1. Measured by its binding ability in a functional ELISA . Immobilized human Erbb2 at 2.5 μg/ml (100 μl/well) can bind Herceptin with a linear ranger of 1.28-32 ng/ml. 2. Measured by its ability to block anti-ErbB2 mediated inhibition of BT474 human breast ductal carcinoma cell proliferation. The ED_{50} for this effect is 0.3-1.8 μg/mL in the presence of 0.6 μg/mL Anti-ErbB2/Her2 Monoclonal Antibody.

Endotoxin:

< 1.0 EU per μg of the protein as determined by the LAL method

Stability:

Samples are stable for up to twelve months from date of receipt at -70 ℃

Predicted N terminal: Thr 23

Molecular Mass:

The recombinant human ErbB2 comprises 641 amino acids and has a calculated molecular mass of 71 kDa. As a result of glycosylation, rh ErbB2 migrates as an approximately 100-110 kDa protein in SDS-PAGE under reducing conditions.

Formulation:

Lyophilized from sterile PBS, pH 7.4

Normally 5 % - 8 % trehalose, mannitol and 0.01% Tween80 are added as protectants before lyophilization. Specific concentrations are included in the hardcopy of COA. Please contact us for any concerns or special requirements.

Usage Guide

Storage:

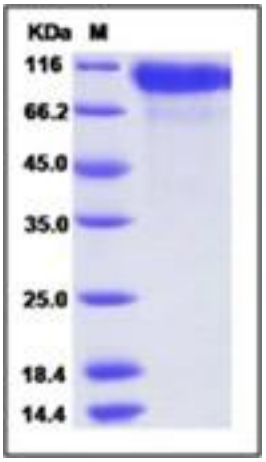
Store it under sterile conditions at -20℃ to -80℃ upon receiving. Recommend to aliquot the protein into smaller quantities for optimal storage.

Avoid repeated freeze-thaw cycles.

Reconstitution:

Detailed reconstitution instructions are sent along with the products.

SDS-PAGE:



Protein Description

Epidermal growth factor receptor 2 (HER2), also known as ErbB2, NEU, and CD340, is a type I membrane glycoprotein, and belongs to the epidermal growth factor (EGF) receptor family. HER2 protein cannot bind growth factors due to the lacking of ligand binding domain of its own and autoinhibited constitutively. However, HER2 forms a heterodimer with other ligand-bound EGF receptor family members, therefore stabilizes ligand binding and enhances kinase-mediated activation of downstream molecules. HER2 plays a key role in development, cell proliferation and differentiation. HER2 gene has been reported to associate with malignancy and a poor prognosis in numerous carcinomas, including breast, prostate, ovarian, lung cancers and so on.

References

3.Krawczyk N, *et al.* (2009) HER2 status on persistent disseminated tumor cells after adjuvant therapy may differ from initial HER2 status on primary tumor. Anticancer Res. 29(10): 4019-24.